6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

[EPA-ORD-2016-0196; FRL-9945-79-ORD]

Updates to the Demographic and Spatial Allocation Models to Produce Integrated Climate and Land Use Scenarios Version 2

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of public comment period.

SUMMARY: The Environmental Protection Agency (EPA) is announcing a 30-day public comment period for the draft document titled, "Updates to the Demographic and Spatial Allocation Models to Produce Integrated Climate and Land Use Scenarios (ICLUS) Version 2" (EPA/600/R-14/324). EPA is also announcing that Versar, Inc., an EPA contractor for external scientific peer review, will select four independent experts from a pool of eight to conduct a letter peer review of the same draft document. The document was prepared by the National Center for Environmental Assessment within EPA's Office of Research and Development. This document describes the development of version 2 of Integrated Climate and Land Use Scenarios (ICLUS), including updates to data sets and the demographic and spatial allocation models.

EPA intends to forward the public comments that are submitted in accordance with this

document to the external peer reviewers for their consideration during the letter peer review.

When finalizing the draft documents, EPA intends to consider any public comments received in

response to this document. EPA is releasing this draft document for the purposes of public

comment and peer review. This draft document is not final as described in EPA's information

quality guidelines and does not represent and should not be construed to represent Agency policy

or views.

The draft document is available via the Internet on EPA's Risk web page under the

Recent Additions at http://www.epa.gov/risk.

DATES: The document will be available on April 29, 2016.

ADDRESSES: The draft report, "Updates to the Demographic and Spatial Allocation Models to

Produce Integrated Climate and Land Use Scenarios (ICLUS) Version 2," is available primarily

via the Internet on the Ecological Risk Assessment Products and Publications web page at

http://www.epa.gov/risk/ecological-risk-assessment-products-and-publications. A limited

number of paper copies are available from the Information Management Team, NCEA;

telephone: 703-347-8561; facsimile: 703-347-8691. If you are requesting a paper copy, please

provide your name, mailing address, and the document title.

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FOR FURTHER INFORMATION CONTACT: For information on the public comment period, contact the ORD Docket at the EPA Headquarters Docket Center; telephone: 202-566-1752; facsimile: 202-566-9744; or e-mail: Docket_ORD@epa.gov.

For technical information, contact Britta Bierwagen, NCEA; telephone: 703-347-8613; facsimile: 703-347-8694; or e-mail: bierwagen.britta@epa.gov.

SUPPLEMENTARY INFORMATION:

<u>Information About the Project/Document</u>

The first version of the Integrated Climate and Land Use Scenarios (ICLUS) project modeled population, residential development, and impervious surface cover changes by decade to the year 2100 consistent with four global carbon emissions storylines and a baseline. The current report discusses improvements to the underlying models of ICLUS that result in version 2 (v2). ICLUS v2 is consistent with updated global socioeconomic scenarios (e.g., Shared Socioeconomic Pathways (SSPs)) and new global climate change model targets (e.g., Representative Concentration Pathways (RCPs)). Improvements include the use of updated population and land use/cover data sets, integration of changing climate variables within the migration model, inclusion of transportation network capacity and its increase over time, growth in commercial and industrial land uses, and the use of population density-driven demands for growth of residential housing, commercial development, and industry. This report demonstrates the effect of these improvements by comparing national and regional results among the SSP and RCP combinations used and the two climate models selected. ICLUS v2 shows differences in population migration patterns by including climate variables that change over time rather than

ones that are static. Additionally, changing commercial and industrial land uses can drive

patterns of new urban growth that have consequences for many environmental endpoints.

Therefore, ICLUS v2 is better suited to explore scenarios of climate change impacts,

vulnerability, and adaptation options, including the use of ICLUS v2 outputs in models

projecting emissions from developed land uses and consequences for water and air quality

endpoints, as well as human health.

Dated: April 11, 2016.

Mary A. Ross,

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Assessment.

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